

AMENDMENTS TO THE CLAIMS:

Claim 1. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

an image signal accumulator that accumulates the intensity signals for a plurality of pixels to generate an accumulated intensity signal;

an accumulated value comparator that compares the accumulated intensity signal to a prescribed value;

~~a brightness detection circuit for detecting a brightness so as to obtain screen brightness information;~~ and

Cont a charge recovery timing control circuit for controlling the length of a charge recovery period from a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential based upon the results of said comparison, ~~wherein said charge recovery timing control circuit controls said charge recovery period of said charge recovery circuit in response to said brightness information obtained by said brightness detection circuit.~~

Claim 2. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

a brightness detection circuit for detecting a brightness so as to obtain screen brightness information; and

a charge recovery timing control circuit for controlling a charge recovery period from

a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential, wherein said charge recovery timing control circuit controls said charge recovery period of said charge recovery circuit in response to said brightness information obtained by said brightness detection circuit ~~A drive apparatus for a plasma display panel according to claim 1,~~

wherein said brightness detection circuit comprises:

an image signal accumulator for accumulating a brightness of each pixel of said plasma display panel for each frame or for each field of an image signal; and

an accumulated value comparator for determining whether an accumulated value detected by said image signal accumulator is larger or smaller than a prescribed value.

Claim 3. (Original) A drive apparatus for a plasma display panel according to claim 2, wherein said image signal accumulator accumulates a brightness of all pixels in an effective display area of said plasma display panel.

Claim 4. (Original) A plasma display panel drive apparatus according to claim 2, wherein said image signal accumulator accumulates only a brightness of pre-established pixels within an effective display area of said plasma display panel.

Claim 5. (Original) A drive apparatus for a plasma display panel according to claim 2, wherein said charge recovery timing control circuit controls so that, when said accumulated value obtained by said image signal accumulator is lower than a prescribed value said charge recovery period is made relatively short, and further so that, when said accumulated value

obtained by said image signal accumulator is higher than said prescribed value said charge recovery period is made relatively long.

Claim 6. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

a brightness detection circuit for detecting a brightness so as to obtain screen brightness information; and

Cont a charge recovery timing control circuit for controlling a charge recovery period from a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential, wherein said charge recovery timing control circuit controls said charge recovery period of said charge recovery circuit in response to said brightness information obtained by said brightness detection circuit ~~A drive apparatus for a plasma display panel according to claim 1,~~

wherein said charge recovery timing control circuit controls to change said charge recovery period for only a sub-field that has a relatively large brightness weight, and to leave said charge recovery period for a sub-field having a relatively small brightness weight unchanged.

Claim 7. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

a brightness detection circuit for detecting a brightness so as to obtain screen

brightness information;

a charge recovery timing control circuit for controlling a charge recovery period from a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential, wherein said charge recovery timing control circuit controls said charge recovery period of said charge recovery circuit in response to said brightness information obtained by said brightness detection circuit; and

~~A drive apparatus for a plasma display panel according to claim 1, further comprising~~

a pixel counting circuit for counting a number of pixels of a brightness exceeding a pre-established reference brightness, wherein in a case in which a value counted by said pixel counting circuit is below a pre-established value, said charge recovery timing control circuit controls so as to make said charge recovery period relatively long.

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Claim 8. (Original) A drive apparatus for a plasma display panel according to claim 2, wherein said image signal accumulator accumulates a brightness of each pixel and then determines the average brightness.

Claim 9. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

~~A drive apparatus for a plasma display panel according to claim 1, wherein said brightness detection circuit comprises~~

a power consumption detection circuit for measuring a power consumption of said plasma display panel; and

a charge recovery timing control circuit for controlling the length of a charge recovery period from a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential based upon the power consumption.

Claim 10. (Currently amended) A method for driving a plasma display panel comprising a charge recovery circuit for re-using a recovered electrical charge, said method comprising:

accumulating the intensity for a brightness of each pixel of said plasma display panel for each frame or for each field of an image signal and obtaining an accumulated value thereof;

Cont comparing whether said value is larger or smaller than a prescribed value; and changing the length of a charge recovery period from a time at which a charge recovery operation of said charge recovery circuit starts to a time of fixing to a sustaining potential or a ground potential, in response to said comparison results obtained in said comparing said value.

Claim 11. (Currently amended) The method according to claim 10, wherein said accumulating the intensity for a brightness of each pixel comprises accumulating the intensity a brightness of each pixel in an effective display area of said plasma display panel.

Claim 12. (Currently amended) The method according to claim 10, wherein said accumulating the intensity for a brightness of each pixel comprises accumulating the intensity

~~a brightness~~ of pre-established pixels within an effective display area of said plasma display panel.

Claim 13. (Currently amended) The method according to claim 10, wherein said changing the length of a charge recovery period comprises controlling a charge recovery timing so as to make said charge recovery period relatively long when said value accumulated in said accumulating the intensity ~~a brightness~~ exceeds a threshold.

Claim 14. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

Cont an image signal accumulator that accumulates the intensity signals for a plurality of pixels to generate an accumulated intensity signal;

an accumulated value comparator that compares the accumulated intensity signal to a prescribed value;

~~a brightness detector for detecting a brightness so as to obtain screen brightness information;~~ and

a charge recovery timing controller for controlling the length of a charge recovery period based upon ~~in response to~~ said comparison ~~brightness information obtained by said brightness detector.~~

Claim 15. (Currently amended) The drive apparatus for a plasma display panel according to claim 14, wherein said ~~brightness detector further comprises:~~ an image signal

accumulator accumulates the intensity for accumulating a brightness of each pixel of said plasma display panel for each frame or for each field of an image signal.

Claim 16. (Currently amended) A drive apparatus for a plasma display panel comprising a charge recovery circuit that re-uses a recovered electrical charge, said drive apparatus comprising:

a brightness detector for detecting a brightness so as to obtain screen brightness information; and

a charge recovery timing controller for controlling a charge recovery period in response to said brightness information obtained by said brightness detector,

wherein said brightness detector further comprises:

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an image signal accumulator for accumulating a brightness of each pixel of said plasma display panel for each frame or for each field of an image signal; The drive apparatus for a plasma display panel according to claim 15, and

wherein said brightness detector further comprises:

an accumulated value comparator for determining whether an accumulated value detected by said image signal accumulator is larger or smaller than a prescribed value.

Claim 17. (Currently amended) The drive apparatus for a plasma display panel according to claim 15, wherein said image signal accumulator accumulates the intensity a brightness of all pixels in an effective display area of said plasma display panel.

Claim 18. (Currently amended) A method for driving a plasma display panel comprising

a charge recovery circuit that re-uses a recovered electrical charge, said method comprising:

detecting the accumulated intensity of said plasma display panel ~~a brightness so as to obtain screen brightness information;~~

comparing the an accumulated intensity with ~~brightness value so as to determine whether said brightness value is larger or smaller than a threshold value; and~~

controlling a length of a charge recovery period based upon the results of said comparison ~~in response to said brightness value.~~

Cont Claim 19. (Previously presented) The method for driving a plasma display panel according to claim 18, further comprising:

re-using a recovered electrical charge with a charge recovery circuit.

Claim 20. (Currently amended) The method according to claim 10, wherein, said controlling a charge recovery period comprises controlling the charge recovery period timing so as to make said charge recovery period relatively long when said value accumulated in said accumulating the intensity ~~a brightness~~ exceeds the threshold.
